

THAT WHICH IS CLAIMED:

1. An isolated polypeptide having an amino acid sequence selected from the
5 group consisting of:
- (a) The amino acid sequence shown in SEQ ID NO 1;
 - (b) The amino acid sequence encoded by the cDNA contained in ATCC
Deposit No. _____;
 - (c) The amino acid sequence of an allelic variant of the amino acid
10 sequence shown in SEQ ID NO 1;
 - (d) The amino acid sequence of an allelic variant of the amino acid
sequence encoded by the cDNA contained in ATCC Deposit No. _____;
 - (e) The amino acid sequence of a sequence variant of the amino acid
sequence shown in SEQ ID NO 1, wherein the sequence variant is encoded by a
15 nucleic acid molecule hybridizing to the nucleic acid molecule shown in SEQ ID NO
2 under stringent conditions;
 - (f) The amino acid sequence of a sequence variant of the amino acid
sequence encoded by the cDNA clone contained in ATCC Deposit No.____, wherein
the sequence variant is encoded by a nucleic acid molecule hybridizing under
20 stringent conditions to the cDNA contained in ATCC Deposit No. _____;
 - (g) A fragment of the amino acid sequence shown in SEQ ID NO 1,
wherein the fragment comprises at least 12 contiguous amino acids;
 - (h) A fragment of the amino acid sequence encoded by the cDNA
contained in ATCC Deposit No. _____, wherein the fragment comprises at least 12
25 contiguous amino acids;
 - (i) The amino acid sequence of the mature receptor polypeptide from
about amino acid 6 to about amino acid 359, shown in SEQ ID NO 1;
 - (j) The amino acid sequence of the mature polypeptide from about amino
acid 6 to about amino acid 359, encoded by the cDNA clone contained in ATCC
30 Deposit No. _____;

(k) The amino acid sequence of the transmembrane domain of the polypeptide shown in SEQ ID NO 1, from about amino acid 43 to about amino acid 318;

(l) The amino acid sequence of the transmembrane domain from about
5 amino acid 43 to about amino acid 318 in the polypeptide encoded by the cDNA contained in ATCC Deposit No. _____;

(m) The amino acid sequence of an epitope bearing region of any one of the polypeptides of (a)-(l).

10 2. An isolated antibody that selectively binds to a polypeptide of claim 1, (a)-(m).

3. An isolated nucleic acid molecule having a nucleotide sequence selected from the group consisting of:

15 (a) The nucleotide sequence shown in SEQ ID NO 2;
(b) The nucleotide sequence in the cDNA contained in ATCC Deposit No. _____;

(c) A nucleotide sequence encoding the amino acid sequence shown in SEQ ID NO 1;

20 (d) A nucleotide sequence encoding the amino acid sequence encoded by the cDNA contained in ATCC Deposit No. _____; and

(e) A nucleotide sequence complementary to any of the nucleotide sequences in (a), (b), (c), or (d).

25 4. An isolated nucleic acid molecule having a nucleotide sequence selected from the group consisting of:

(a) A nucleotide sequence encoding an amino acid sequence of a sequence variant of the amino acid sequence shown in SEQ ID NO 1 that hybridizes to the nucleotide sequence shown in SEQ ID NO 2 under stringent conditions;

30 (b) A nucleotide sequence encoding the amino acid sequence of a sequence variant of the amino acid sequence encoded by the cDNA contained in

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ATCC Deposit No. _____, the nucleic acid sequence of the sequence variant hybridizing to the cDNA contained in ATCC Deposit No. _____ under stringent conditions; and

- 5 (c) A nucleotide sequence complementary to either of the nucleotide sequences in (a) or (b).

5. An isolated nucleic acid molecule a polynucleotide having a nucleotide sequence selected from the group consisting of:

- 10 (a) A nucleotide sequence encoding a fragment of the amino acid sequence shown in SEQ ID NO 1, wherein the fragment comprises at least 12 contiguous amino acids;

(b) A nucleotide sequence encoding a fragment of the amino acid sequence encoded by the cDNA contained in ATCC Deposit No. _____, wherein the fragment comprises at least 12 contiguous amino acids;

- 15 (c) A nucleotide sequence complementary to either of the nucleotide sequences in (a) or (b).

6. A nucleic acid vector comprising the nucleic acid sequences in any of claims 3-5.

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7. A host cell containing the vector of claim 6.

8. A method for producing any of the polypeptides in claim 1 comprising introducing a nucleotide sequence encoding any of the polypeptide sequences in (a)-
25 (m) into a host cell, and culturing the host cell under conditions in which the proteins are expressed from the nucleic acid.

- SUB 04 9. A method for detecting the presence of any of the polypeptides in claim 1 in a sample, said method comprising contacting said sample with an agent that specifically
30 allows detection of the presence of the polypeptide in the sample and then detecting the presence of the polypeptide.

10. The method of claim 9, wherein said agent is capable of selective physical association with said polypeptide.

5 11. The method of claim 10, wherein said agent binds to said polypeptide.

12. The method of claim 11, wherein said agent is an antibody.

13. The method of claim 11, wherein said agent is a ligand.

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14. A kit comprising reagents used for the method of claim 9, wherein the reagents comprise an agent that specifically binds to said polypeptide.

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15. A method for detecting the presence of any of the nucleic acid sequences in any of claims 3-5 in a sample, the method comprising contacting the sample with an oligonucleotide that hybridizes to the nucleic acid sequences under stringent conditions and determining whether the oligonucleotide binds to the nucleic acid sequence in the sample.

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16. The method of claim 15, wherein the nucleic acid, whose presence is detected, is mRNA.

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17. A kit comprising reagents used for the method of claim 15, wherein the reagents comprise a compound that hybridizes under stringent conditions to any of the nucleic acid molecules.

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18. A method for identifying an agent that binds to any of the polypeptides in claim 1, said method comprising contacting the polypeptide with an agent that binds to the polypeptide and assaying the complex formed with the agent bound to the polypeptide.

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